REMARKS

The Office Action of October 4, 2005 has been carefully considered.

Claims 1-3, 7 and 11 have been objected to on the basis that claims may not include flow diagrams. While it is not clear that a chemical reaction qualifies as a flow diagram within the meaning of 37 CFR 1.58, claim 1 has now been replaced by claim 12 which contains individual chemical formulae, but not a reaction sequence.

Objection has also been raised to the quality of the structural formulae in claim 1. These structural formulae reproduced acceptably in the published application, and Applicants have taken those formulae for inclusion in new claim 12 above.

Claims 1-3, 7 and 11 have been rejected under 35 USC 112, 1st paragraph, as non-enabling, for failure to include operational conditions, such as solvents, additives, and reaction temperature.

The present invention is based on the discovery that it is possible to prepare a highly advantageous mixture of three benzidines by reaction of first and second diphenylamine compounds, and a biphenyldihalide compound, in a specific equivalent ratio. The specification includes specific preferred embodiments, including specific additives, reaction temperatures, and solvents, and these preferred embodiments are recited in dependent claims. However, the invention is not intended to be limited to these specific preferred embodiments, and one of ordinary skill in the art could adapt the invention as recited in claim 12, based on the extensive disclosure of the specification, without undue experimentation.

Thus, the invention as claimed in claim 12 is within the scope of the supporting disclosure, and withdrawal of this rejection is requested.

Claims 1-11 have been rejected under 35 USC 103(a) over Nishiyama et al.

Nishiyama et al discloses a process for producing a heterocyclic aromatic amine or an arylamine, including the step of reacting a heterocyclic aromatic halide with an amine compound in the presence of a base. The main characteristic of this process resides in the use of a catalyst comprising tri-tert-butylphosphine and a palladium compound (see claim 1).

Thus, the reactants disclosed are an aromatic halide and an aromatic amine, compounds which may also be used in the process of the invention. However, the reactants according to the invention are *two different aromatic amine compounds and one aromatic halide*, which is not disclosed by Nishiyama et al. Moreover, Nishiyama et al does not teach to one of ordinary skill in the art how to obtain the claimed benzidine mixture.

Withdrawal of this rejection is requested.

Claims 1-11 have been rejected under 35 U.S.C. 103(a) over Turner et al, Akasaki et al and Nishiyama et al, each taken alone. On page 6, lines 4-5 of the Official Action, it is stated "Note '625' teaches the use of applicants reactant (1) and (2), see column 1, lines 66-67."

According to the description in column 1, lines 66-67 of Turner et al, examples of these amines (compounds 1 and 2) are 3-methyldiphenylamine, diphenylaniline, diethylamine, etc. This patent does not disclose that a combination these amines should be reacted simultaneously according to the method of the invention to obtain a specific benzidine mixture. The method according to the invention resides in simultaneous use of reactants (1), (2) and (3), rather than the individual reactants (1), (2) or (3), and thus the disclosure of reactant (1) or (2), and even reactant (3) does not suggest the invention.

As stated on page 2 in lines 15-17 of the present application, an object of the invention is to provide a method for preparing three types of benzidine compounds in a specific ratio. The benzidine mixture with the claimed ratio has excellent electrical characteristics. This benzidine mixture with a specific ratio as defined in the invention is not disclosed in the prior art, and could not have been easily inferred to by one of ordinary skill in the art. Moreover, those skilled in the art could not anticipate that this benzidine mixture with the claimed ratio could be prepared by the claimed reactant mixture. The unique relationship between the reactants (compounds 1, 2 and 3) and the benzidine mixture (compounds 4, 5 and 6) was unobvious to the skilled artisan.

Akasaki et al discloses preparation of a benzidine compound by reaction of an dihalobiphenyl with a diarylamine. However, Akasaki et al does not disclose or suggest reacting two diarylamines with a dihalobiphenyl in a specific ratio to obtain a specifically defined mixture of benzidines. Neither the selection of reactants nor the final product mixture would be obvious from consideration of Akasaki et al.

Nishiyama et al has been discussed in detail above, and neither the specific claimed product mixture nor the specific reactant mixture necessary to obtain the product mixture is suggested by this reference.

Withdrawal of this rejection is requested.

In view of the foregoing amendments and remarks, Applicants submit that the present application is now in condition for allowance. An early allowance of the application with amended claims is earnestly solicited.

Respectfully submitted,

Ira J. Schultz
Registration No. 28666